



Collaboration, Innovation and Resilience: Championing a Digital Generation

Brisbane, Australia 6-10 April

# Building a Climate-Responsive Land Governance Framework: A Case from Nepal

**Mr. Ganesh Prasad BHATTA; Ph.D. Scholar, KU, Nepal / Joint Secretary, Government of Nepal**

Dr. Reshma SHRESTHA; Associate Professor, KU, Nepal

Dr. Dev Raj PAUDYAL; Lecturer, UniSQ, Australia

Dr. Sunil Babu SHRESTHA, Academician, Nepal Academy of Science and Technology, Nepal



PLATINUM SPONSORS



## Presentation Outline

- Setting the Scene
- Impact of Climate Change in Land
- Climate Change - Land Nexus
- Melamchi Case Study
- Need of Climate Responsive Land Governance System
- Immediate Action to develop Climate Responsive Land Governance Framework
- Conclusion





AND **Locate25** | **G**  
THE NATIONAL GEOSPATIAL CONFERENCE

Collaboration, Innovation and Resilience:  
Championing a Digital Generation



Brisbane, Australia 6-10 April



PLATINUM SPONSORS





**Thame, Solukhumbu, Aug 24, 2024**



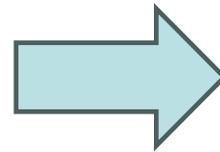


Some examples of Climate Change induced disasters from Nepal; Affecting the Tenure of Land and Forest

## Impact of Climate Change in Land

- Glacial lake outburst
- Landslides / Soil erosion
- Flooding
- Forest fire
- Depleted water sources

- Loss of land
- Desertification
- Reduced agricultural productivity
- Loss of biodiversity
- Water scarcity



- Landlessness
- Increased Poverty and Economic Insecurity
- Displacement
- Disruption in social activities
- Increased vulnerability
- Impact on indigenous practices and traditional practices
- Social conflicts over resources

## Climate Change - Land Nexus in Legal and Policy Documents

- Policy and Legal Frameworks are in place but Land Tenure issues are missing
  - Policies: Land Use Policy, 2015; National Land Policy, 2018; National Climate Policy, 2019
- Acts/Regulations;
  - Land Related Act and Rules; Land Revenue Act and Regulation, Land Use Act and Regulation, Land (Survey and Measurement) Act/Regulation
- Disaster Risk Reduction National Action Plan 2018-2030
  - Local Adaptation Plan of Actions to Climate Change (LAPA)
  - National Adaptation Plan of Actions to Climate Change (NAPA)
- Environment Friendly Local Governance Framework, 2021



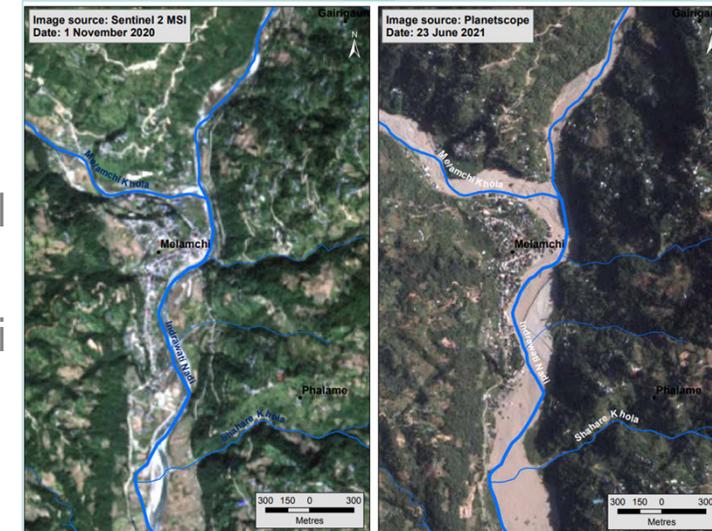
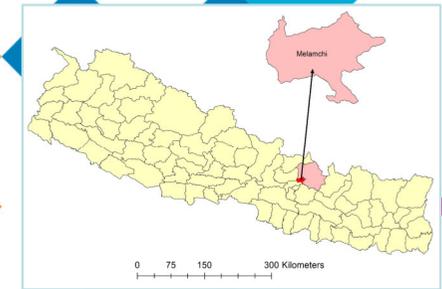
Limited recognition of the critical role of land tenure in climate change adaptation / resilience

## Climate Change - Land Nexus: In practice

- The issue of Land Tenure/ Land Rights / Land Ownership is overlooked in Climate Discussion
  - e.g. High Level Climate Change Steering Committee – no representation from the Ministry of Land Management
- No specific policies and legal provisions to address the issue of Post Disaster Landlessness
  - Guidelines for housing are available though; no titles are issued to affected family if rehabilitated else
- There is no any provision of addressing landlessness caused by disaster in the DRR National Strategy: Plan of Action (2018-2030)
- Land Use Planning has not been considered as a basis for infrastructure development
- Post-disaster landlessness and tenure loss is NOT in reord
  - Impacts to Informal Settlers?
  - Impacts to social tenure, pasture land, open space, land of public usasge ??

## CASE STUDY: MELAMCHI FLOOD

- Disastrous flooding on June 15, 2021 about 50 km from the capital city
  - A stretch of Indrawati basin, 18 kilometer in length, consisting of the Melamchi, Yangri, and Larke rivers that lies in Helambu Rural Municipality and Melamchi Municipality
- Major Losses encountered
  - Altogether 40 casualties (including those reported mission)
  - Destruction of houses, infrastructure, agriculture, tourism, traditional practices, and cultural values
  - Damage to the headworks of a mega drinking water project – Melamchi Project- developed for Kathmandu Valley
  - Multiple Loss to Land Tenure (next slide)



## CASE STUDY: MELAMCHI FLOOD; Multiple loss to land tenure

- About 215 households displaced – have to relocated at new location
- Subsistence farming-based families have incurred a permanent loss or damage of highly valuable agriculture and farm land, especially highly productive paddy fields as well as the harvest of rice – 270 parcels completely lost.
- Communities settled near the river have lost multiple sources of livelihoods such as small shops, agricultural land.
- Riparian communities such as fishing communities faced a higher level of vulnerability due to their dependence on the river for their livelihoods.
- Trout farm holders not only lost their farms but also many people lost their jobs from such farms
- Subsistence farming based families have incurred a permanent loss of highly valuable paddy fields as well as.
- Children also faced disruption in their education due to the loss of school buildings.
- *Altogether a loss of US\$500 million was estimated*

## CASE STUDY: MELAMCHI FLOOD; Findings/observations

- Weak responses to the disaster
  - Nominal compensation (only a sum of US\$4,500 per household)
  - No rehabilitation of lost land parcels yet
  - No rehabilitation of lost houses, especially individual properties yet
  - No rehabilitation or recognition of multiple tenure rights
- In summary: *This case underscores the weaknesses in addressing the issue for land tenure security, ultimately endangering the lives and well-being of its people*



## Need of Climate Responsive Land Governance in Nepal

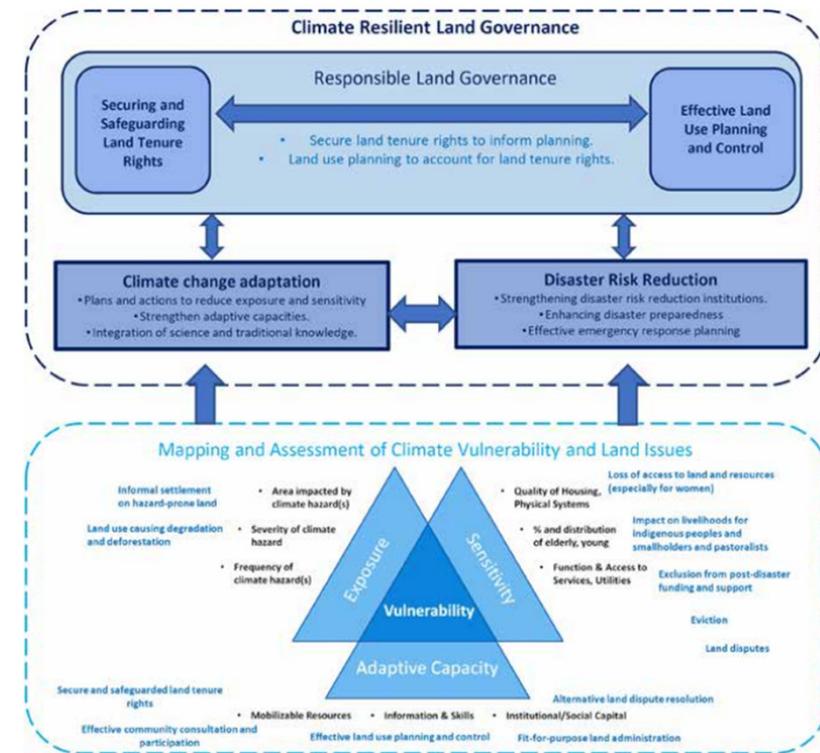
- To safeguard land rights, strengthen adaptive capacity, and sustain livelihoods.
- To enhance resilience and reduce vulnerability to climate-induced disasters.
- To ensure tenure security, even in the face of losses caused by climate-induced disasters.
- To promote sustainable land and resource management to mitigate climate impacts.
- To empower local communities with the tools and authority to adapt to changing climate conditions.
- **Ultimately, to establish a climate-resilient, equitable, and sustainable land governance system.**

### Call to Action:

Developing a climate-resilient land governance framework is of Immediate Priority in Nepal

# Actions to develop Climate Responsive Land Governance Framework in Nepal

- **Enhancing Awareness**
  - To make aware about how land issues are under threat from the climate induced disasters
- **Assessment of climate change induced impacts in land sector**
  - Adequate human capacity
  - Adequate information
- **Improve the policy and legal provisions**
  - To make sure that impact of climate change in land issues are well addressed
- **Carryout climate responsive land use planning**
- **Strengthen the organisational capacity**



Framework by: Mitchell and McEvoy, (2019)

## Conclusion

- Nepal faces serious threats from climate change, posing significant risks to land issues including land use/tenure/right/ownership
- Little or almost negligible attentions are in place to address these risks
- **Sustainable and climate-resilient land management/governance is essential for a secure future.**
- Developing a “climate-resilient land governance framework” deserves a immediate plan to action
  - with adequate policy and legal framework, governance tools, capacitated governance machinery, among others, in place.

# The most relevant SDGs related to the presentation and theme of this session

1st relevant SDG



2nd relevant SDG



3rd relevant SDG



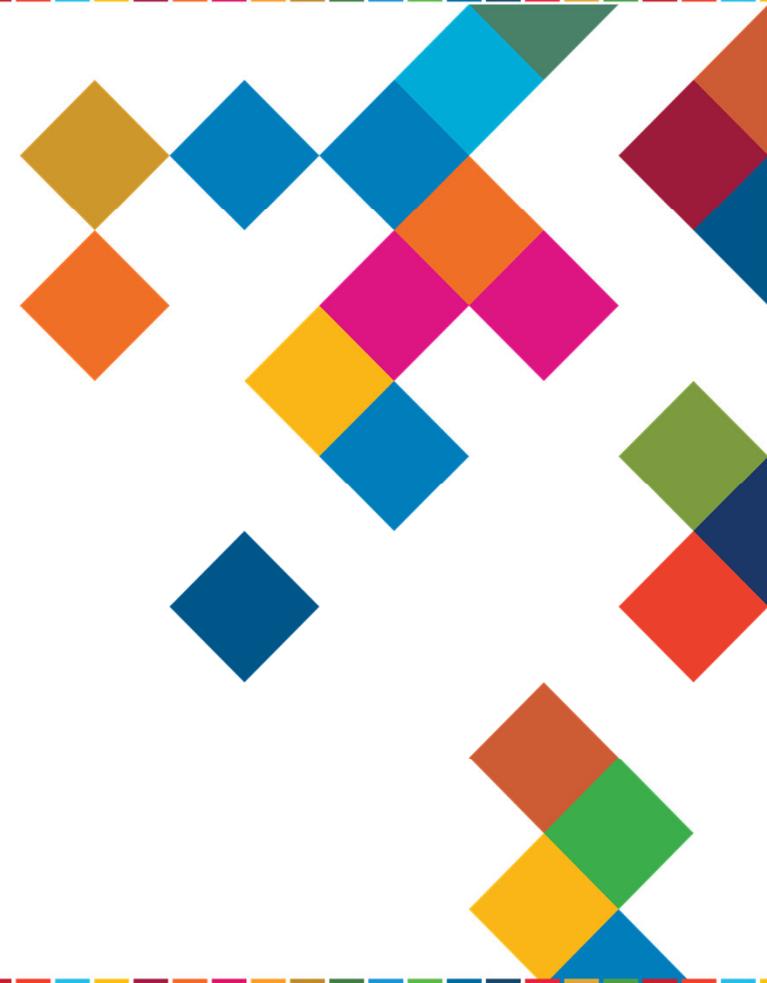
SUSTAINABLE DEVELOPMENT GOALS

International Federation of Surveyors supports the Sustainable Development Goals

Thank You!



*in case you wish to contact me*





**WORKING WEEK 2025**

AND

**Locate25** | **G**  
THE NATIONAL GEOSPATIAL CONFERENCE

Collaboration, Innovation and Resilience:  
Championing a Digital Generation



**Geospatial**  
Council of Australia

Brisbane, Australia 6-10 April

**STEP 1: SELECT HERE THE THREE MOST RELEVANT SDGs**  
**STEP 2: COPY THE SDG INTO PREVIOUS SLIDE**

<b>1</b> NO POVERTY 	<b>2</b> ZERO HUNGER 	<b>3</b> GOOD HEALTH AND WELL-BEING 	<b>4</b> QUALITY EDUCATION 	<b>5</b> GENDER EQUALITY 	<b>6</b> CLEAN WATER AND SANITATION 	<b>7</b> AFFORDABLE AND CLEAN ENERGY 	<b>8</b> DECENT WORK AND ECONOMIC GROWTH 	<b>9</b> INDUSTRY, INNOVATION AND INFRASTRUCTURE 
<b>10</b> REDUCED INEQUALITIES 	<b>11</b> SUSTAINABLE CITIES AND COMMUNITIES 	<b>12</b> RESPONSIBLE CONSUMPTION AND PRODUCTION 	<b>13</b> CLIMATE ACTION 	<b>14</b> LIFE BELOW WATER 	<b>15</b> LIFE ON LAND 	<b>16</b> PEACE, JUSTICE AND STRONG INSTITUTIONS 	<b>17</b> PARTNERSHIPS FOR THE GOALS 	